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|-------------------------------|--------------------------------|---------------------|--|
| <b>Notice of Allowability</b> | <b>Application No.</b>         | <b>Applicant(s)</b> |  |
|                               | 10/089,302                     | TAKASU ET AL.       |  |
|                               | Examiner<br>Patricia L. Hailey | Art Unit<br>1755    |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to a Request for Continued Examination, filed on May 12, 2004.
2.  The allowed claim(s) is/are 1 and 4-41.
3.  The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some\*    c)  None    of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

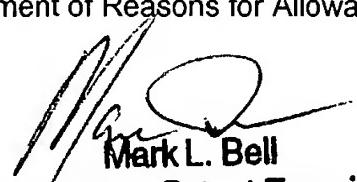
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6.  CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 05/12/04
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.



Mark L. Bell  
Supervisory Patent Examiner  
Technology Center 1700

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on May 12, 2004, has been entered.

In the submission, claims 1 and 8 have been amended, and new claim 41 has been added.

Claims 1 and 4-41 are now pending in this application.

Support for the amendment to claim 1 can be found in the Specification at page 10, lines 16-19. Claim 8 has been amended to recite the term "comprising" instead of "characterized by". Support for new claim 41 can be found in the Specification at page 9, lines 17-24.

***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Applicants' Priority Document was filed on March 29, 2002.

**EXAMINER'S AMENDMENT**

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The following claims are being rewritten because they contained missing characters (letters) as a result of incomplete scanning of the submission. These claims were originally presented in an amendment filed by Applicants on October 16, 2003.

10. (Previously Presented) A method of decomposing as claimed in claim 8 wherein the organic halide(s) is at least one of chlorodioxins and polychlorodioxins; polychlorobiphenyls; chloroalkanes and polychloroalkanes; chloroalkenes and polychloroalkenes; bromodioxins and polybromodioxins; polybromobiphenyls; bromoalkanes and polybromoalkanes; and bromoalkenes and polybromoalkenes.

15. (Previously Presented) A method of decomposing as claimed in claim 14 wherein the catalyst further comprises at least one oxide comprising at least one atom selected from the group consisting of titanium, zirconium, niobium, molybdenum, tungsten and chromium; and at least one sulfate comprising at least one atom selected from the group consisting of alkaline earth metals and lead.

22. (Previously Presented) A method of decomposing as claimed in claim 18 wherein the sulfate is barium sulfate.

26. (Previously Presented) A method of decomposing as claimed in claim 17 wherein the at least one organic halide is at least one of chlorodioxins and polychlorodioxins; polychlorobiphenyls; chloroalkanes and polychloroalkanes; chloroalkenes and polychloroalkenes; bromodioxins and polybromodioxins; polybromobiphenyls; bromoalkanes and polybromoalkanes; and bromoalkenes and polybromoalkenes.

33. (Previously Presented) A method of decomposing as claimed in claim 24 wherein the at least one organic halide is at least one of chlorodioxins and polychlorodioxins, polychlorobiphenyls, chlorobenzene, dichlorobenzene, chlorotoluene, chlorophenol, chloromethane, chloroethylene, bromodioxins and polybromodioxins, polybromobiphenyls, bromobenzene, dibromobenzene, bromotoluene, bromophenol, polybromobiphenyl ether, bromomethane and bromoethylene.

36. (Previously Presented) A method of decomposing as claimed in claim 27 wherein the at least one organic halide is at least one of chlorodioxins and polychlorodioxins, polychlorobiphenyls, chlorobenzene, dichlorobenzene, chlorotoluene, chlorophenol, chloromethane, chloroethylene, bromodioxins and polybromodioxins, polybromobiphenyls, bromobenzene, dibromobenzene, bromotoluene, bromophenol, polybromobiphenyl ether, bromomethane and bromoethylene.

39. (Previously Presented) A method of decomposing as claimed in claim 30 wherein the at least organic halide is at least one of chlorodioxins and polychlorodioxins, polychlorobiphenyls, chlorobenzene, dichlorobenzene, chlorotoluene, chlorophenol, chloromethane, chloroethylene, bromodioxins and polybromodioxins, polybromobiphenyls, bromobenzene, dibromobenzene, bromotoluene, bromophenol, polybromobiphenyl ether, bromomethane and bromoethylene.

***Allowable Subject Matter***

4. Claims 1 and 4-41 are allowed.

***Reasons for Allowance***

5. The following is an examiner's statement of reasons for allowance:

The prior art of record does not teach or suggest the claimed catalyst for decomposing an organic halide, comprising 5 to 30 wt. % of a water-insoluble vanadyl sulfate, 20 to 70 wt. % of at least one oxide comprising one of titanium and niobium, and 20 to 70 wt. % of at least one sulfate comprising at least one atom selected from the group consisting of calcium, barium, strontium, and lead, wherein the sum total of the aforementioned components equals 100%.

Applicants have submitted a verified English translation of Japanese Patent No. 61-204040, which was originally filed by Applicants in an Information

Disclosure Statement on February 9, 2004. Although the Japanese patent discloses a catalyst strongly similar to that instantly claimed, i.e., by teaching the same components as those instantly claimed, as well as comparable ranges for these components (page 7, lines 1-10 of the translation), the Japanese Patent also teaches that 5 to 30 wt. % of a clay may also be added. Applicants' claims in their present form exclude the presence of additional materials with the claim limitation "wherein (a) + (b) + (c) = 100%".

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Hailey whose telephone number is (571) 272-1369. The examiner can normally be reached on Mondays-Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark L. Bell can be reached on (571) 272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 1700 Receptionist, whose telephone number is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Patricia L. Hailey*  
Patricia L. Hailey/plh  
Examiner, Art Unit 1755  
July 1, 2004

*Mark L. Bell*  
Mark L. Bell  
Supervisory Patent Examiner  
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